

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 1.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015862**Date Inspected:** 29-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** American Bridge/Fluor Enterprises, a JV**Location:** Jobsite**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** SAS OBG**Summary of Items Observed:**

On this date CALTRANS OSM Quality Assurance Inspector (QAI) Bert Madison was present at Yerba Buena Island in California between the times noted above for observations relative to the work being performed by American Bridge/Fluor Enterprises (AB/F) personnel at the locations noted below.

- 1). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face A (Weld Repairs)
- 2). OBG Field Splice 1W/2W Weld ID: F1, Face A (Weld Repairs)
- 3). OBG Field Splice 2W/3W Weld ID: D1 & D2, Face A (QC UT)
- 4). OBG Field Splice 2W/3W Weld ID: F1, Face A (Weld Repairs)

- 1). OBG Field Splice 1W/2W Weld ID: D1 & D2, Face A

The QAI periodically observed AB/F approved welder Fred Kaddu (ID 2188) performing repair welding per the Shielded Metal Arc Welding (SMAW) process in the 1G (flat) position of repair excavations at Ultrasonic Testing (UT) reject areas from the A face. AB/F approved welder Kenneth Chappell was performing the excavating by grinding. AB/F QC Inspector Tom Pasqualone was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The QAI periodically observed QC Inspector Tom Pasqualone performing Magnetic Particle Testing (MT) of the repair excavations at the the repair locations prior to Mr. Kaddu performing welding. The QAI observed that the performance and evaluation of the MT appeared to comply with the MT procedure identified as SE-MT-CT-D1.5-101 Rev. 4. Work was not completed at this location during the QA Inspectors shift and the work appeared to be in general compliance with contract documents.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

2). OBG Field Splice 1W/2W Weld ID: F1, Face A

The QAI periodically observed AB/F approved welder James Zhen (ID 6001) grinding to excavate (1) one UT reject repair area on the A face of the OBG Field Splice 1W/2W Weld ID: F1. The QAI periodically observed QC Inspector Steve McConnell performing Magnetic Particle Testing (MT) of the excavation at the repair location to confirm the complete removal of the rejectable indication. The QAI observed that Mr. McConnell performed MT after Mr. Zhen indicated that he had observed a “line” when the depth of the excavation was approximately 10mm. Mr. McConnell performed MT and directed Mr. Zhen to perform additional grinding. Mr. Zhen began to grind and indicated that he observed porosity and then performed additional grinding and stated that it was removed. Mr. McConnell performed MT once again and stated that the gouge was clean. See photo below. The depth of the excavation was then approximately 15mm to 16mm. The QAI noted that the original indication rejected during UT from the B face was reported as 10mm deep. The QAI periodically observed AB/F approved welder James Zhen (ID 6001) performing repair welding of the excavated area per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. See photo below. QC Inspector Steve McConnell was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000- Repair. The repair welding was not completed during the QA Inspectors shift and the work at this location appeared to be in general compliance with contract documents. See Summary of Conversation.

3). OBG Field Splice 2W/3W Weld ID: D1 & D2, Face A (QC UT)

The QAI periodically observed QC Jesse Cayabyab performing Ultrasonic Testing (UT) from the A face. The QC utilized the UT Procedure identified as SE-UT-D1.5-CT-100 Rev.4 during the examination of the splice weld. The QAI periodically observed the QC technician performing the required shear wave testing during the testing for weld soundness utilizing a .63 x .75 rectangular transducer. The UT examination was completed from face A during this shift and the QAI observed that the QC inspector had marked three rejectable indications on the steel. The work at this location appeared to be in general compliance with contract documents. Mr. Cayabyab was later observed relocating to the B face of the same weld to continue UT.

4). OBG Field Splice 2W/3W Weld ID: F1, Face A (Weld Repairs)

The QAI periodically observed AB/F approved welder James Zhen (ID 6001) performing repair welding of excavated areas per the Shielded Metal Arc Welding (SMAW) process in the 3G (vertical) position. QC Inspector Steve McConnell was present to monitor the progress and verify that the welding parameters were within the limits established by the approved welding Procedure Specification (WPS) identified as ABF-WPS-D1.5-1000-Repair. The repair welding was completed and the work at this location appeared to be in general compliance with contract documents.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)



Summary of Conversations:

From item 2). The QAI in a conversation with QC Mr. Steve McConnell asked why the repair welding at this location was being excavated and repaired from the A face when the indication was rejected while performing UT from the B face with a reported depth of 10mm which was mid wall on the 20mm edge plate. Mr. McConnell stated that the welder was already set up on the A Face.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammed Fatemi (916) 813 3677, who represents the Office of Structural Materials for your project.

Inspected By: Madison,Bert

Quality Assurance Inspector

Reviewed By: Levell,Bill

QA Reviewer